REMARKS

1. Failure to Examine the Claimed Invention

"The Patent and Trademark Office (PTO) must consider all claim limitations when determining the patentability of an invention over the prior art." *In re Lowry*, 32 USPQ2d 1031, 1034 (Fed. Cir. 1994). Paragraph 4 of the Office action makes clear that the PTO has failed to examine the claim pending before it, thereby violating *In re Lowry*. Pending claim 1 includes the feature "a random access memory having a plurality of locations for volatile storage of data". Claim 22 has been amended to define a method that includes, *inter alia*, issuing a command for a random access memory having volatile storage locations, with the command specifying a first memory location of a plurality of locations for volatile storage of data, and a second random access memory location of a plurality of locations for volatile storage of data; commencing transmission of a quantity of data from the first random access memory location to the second random access memory location; and terminating the transmission of the data to the second random access memory location, during transmission of the quantity thereto, in response to the processor generating a write request to the second random memory location. In paragraph 4 of the Office action it is alleged that disk drives 16a-16k and tape storage devices 18a-18k of figures 1 of Garret et al. correspond to these features. However, it is contended that a person of ordinary skill in the art would not interpret either the tape storage device or disk drives as being a random access device with volatile memory locations. It is submitted that the Office has improperly interpreted the claim limitations of "random access memory having locations for volatile storage of data as being synonymous with tape storage devices or disk storage devices.

Moreover, Applicants submits that the Office is incorrect in its belief that the definition of tape storage and disk storage systems are synonymous with random access volatile storage devices. As is well known, "[c]laims terms are also to be interpreted so as to give the terms their ordinary meaning, absent some clear special definition." See *Enercon GmbH v. International Trade Commission*, 47 USPQ2d 1725, 1731 (Fed. Cir. 1998). In the instant matter the terms disk drives and tape storage are specifically identified as being non-volatile, as discussed with respect to a prior art computer system. See page 3, lines 13-15. This is in distinction to the RAM included in the same computer system that is identified as including volatile storage functionality. See page 2, lines 4-5.

It is this computer system that is employed to carry out embodiments of the claimed invention. See page 10, lines 10-13.

Examining the ordinary meaning of the terms "volatile memory" and "non-volatile memory" further support for the distinction is found. A common definition of volatile memory is found at the wikipedia website as follows:

> Volatile memory, poletic volatile storage, is computer memory that requires power to maintain the stored information, unlike non-volatile memory which does not require a maintained power supply. (A copy of the website is attached hereto as EXHIBIT A).

The definition of non-volatile memory is given on the same website as follows:

> Non-volatile memory, nonvolatile memory, NVM or non-volatile storage, is computer memory that can retain the stored information even when not powered. Examples of non-volatile memory include read-only memory, flash memory, most types of magnetic computer storage devices (e.g. hard disks, floppy disk drives, and magnetic tape), optical disc drives, and early computer storage methods such as paper tape and punch cards.
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> Non-volatile data storage can be categorised in electrically addressed systems random access memory and mechanically addressed systems hard disks, optical disc, magnetic tape, Holographic memory and such. Electrically addressed systems are expensive, but fast, whereas mechanically addressed systems have a low price per bit, but are slow. Non-volatile memory may one day eliminate the need for comparatively slow forms of secondary storage systems, which include hard disks. (A copy of which is attached hereto as EXHIBIT B).

Therefore, it can be seen that volatile memory and non-volatile memory are mutually distinct. Therefore, Applicants respectfully contend that a *prima facie* case of obviousness is not present with respect to either claim 1 or amended claim 22.

2. *No Motivation to Combine Garret et al. with McKenney*

Upon properly interpreting the claims, it becomes salient that there is no motivation or suggestion to combine the teachings of Garrett et al. with McKenney to provide the claimed invention, because doing so would destroy an intended

function of Garrett et al. An important function that Garrett et al. seek to achieve is reducing the CPU time during data transfer activity. See col. 1, lines 22-27. As a result, Garrett et al. disclosure that "the host [computer, i.e., CPU,] is not involved in the actual physical transfer of . . . data . . . [and] the busses connected the host computer to the disk drive controller are also not used and remain free for other operations." See col. 3, lines 46-50. Modifying Garrett et al. to include the features of McKenney in which a CPU transfers or copies the data completely within the cache as alleged in the Office action would destroy the intended function of Garrett et al.'s invention. The CPU would be required to participate in the actual transfer of the data, thereby rendering a desired function of Garrett et al.'s invention inoperable. Therefore, there is no suggestion to include the features of McKenney in the disclosure of Garrett et al. See *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984)(finding that there is no suggestion to modify a prior art apparatus to include features that destroys the intended function of the apparatus).

It should be noted that similar arguments exist with respect to the combination of Garrett et al. and O'Brien et al. Based upon the foregoing, Applicants respectfully contend that a *prima facie* case of obviousness is not present with either claim1 or amended claim 22.

3. New Claim 31

New claim 31 defines a computer system that includes, *inter alia*, a volatile storage device having a plurality of locations for volatile storage of data. A controller is responsive to a command received from a processor to copy data from a first of the plurality of memory locations to a second of the plurality of memory location, responsive to memory access requests from the processor to determine a delay in access by the processor to one of the first and second memory locations. This delay is dependent upon a type of the request and the location among the first and second memory locations to which the access is directed.

4. Dependent Claims

Considering that the dependent claims include all of the features of the independent claims from which they depend, the dependent claims are patentable to the extent that the independent claims are patentable. As a result, Applicants respectfully contend that a *prima facie* case of obviousness is not present with respect to the dependent

claims for the reasons set forth above with respect to the independent claims from which they depend.

Therefore, Applicants respectfully request further examination in view of the amendments and remarks set forth above. A Notice of Allowance is earnestly solicited. If any additional fees are due in connection with filing this Amendment, the Commissioner is also authorized to charge Deposit Account No. 50-0805 (Order No. SUNMP438). If the Examiner has any questions concerning the present amendment, the Examiner is kindly requested to contact the undersigned at (408) 774-6910.

Respectfully submitted,
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